

## CHAPTER XVIII.

## FARMYARD, DAIRY, AND BEE PRODUCTS.

## § 1. Introductory.

1. **General.**—The introduction of cattle into Australia, and the early history of the dairying industry are referred to in some detail in earlier issues of this work (see Official Year Book No. 6, p. 430). It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossing of strains has resulted in an increased and improved milk supply. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the adoption of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with effective State supervision, the dairying industry has shown rapid expansion.

2. **Official Supervision of Industry.**—Dairy experts, under the supervision of the various State Agricultural Departments, give instruction in approved methods of production, and inspect animals, buildings, and marketable produce. A high standard of cleanliness, both of personnel and materiel, prevails. Financial assistance of a temporary nature is also given, advances made being generally repaid with promptitude.

The export trade is regulated by the terms of the Commonwealth Commerce Act 1905 and regulations thereunder. The provisions of this Act are set out in detail in Official Year Book No. 6, pp. 431–2. It will be sufficient to note here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are certificated by the inspector.

3. **Mixed Farming.**—Dairying is not now, as formerly, wholly confined to farmers, since many graziers in a large way of business have lately given it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established.

4. **Factory System.**—Cream separation and butter-making are often carried on together under the co-operative system. The creation of large central butter factories, supplied by numerous separating establishments or “creameries,” has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators, may be profitably worked at the larger establishments. The product is also of a more uniform quality. The number of farmers who adhere to hand processes is rapidly diminishing. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires only 2½ gallons.

5. **Butter and Cheese Factories.**—The factories in Australia for the manufacture of butter, cheese, and condensed milk numbered 573 in 1922–23. These were distributed in the various States as follows:—New South Wales, 170; Victoria, 182; Queensland, 129; South Australia, 51; Western Australia, 8; and Tasmania, 33.

§ 2. Dairy Cattle and Dairy Products.

1. **Dairy Herds.**—The dairy herds of Australia were severely depleted during the drought of 1914–15, when the number of dairy cattle was reduced to 1,634,393. Following that year substantial increases have taken place, particularly in the past three years, in the last of which the number recorded reached its highest point, and represented a gain of more than 300,000 dairy cattle during the past ten years. In New South Wales, Victoria, South Australia, and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory, and Western Australia there is a greatly preponderating number of other cattle, dairying not being firmly established in the tropical regions of the Continent. In Southern Queensland, however, the industry has developed remarkably during the last decade, and the progress attained in that area has been largely responsible for the Australian increases since 1912. The figures for the Northern Territory are rough estimates only:—

CATTLE, AND DAIRY CATTLE—NUMBER, 1918 TO 1922.

State.		1918.	1919.	1920.	1921.	1922.
New South Wales	{ All Cattle ..	3,271,782	3,075,954	3,367,880	3,538,240	3,244,905
	{ Dairy Cows ..	717,910	697,140	757,534	815,579	796,957
Victoria	{ All Cattle ..	1,596,544	1,631,120	1,575,159	1,750,369	1,785,660
	{ Dairy Cows ..	592,079	623,652	620,005	719,473	794,898
Queensland	{ All Cattle ..	5,786,744	5,940,433	6,455,067	7,047,370	6,955,463
	{ Dairy Cows ..	381,505	373,146	448,634	554,208	563,683
South Australia	{ All Cattle ..	342,768	349,562	376,399	419,197	425,811
	{ Dairy Cows ..	103,230	106,982	117,536	131,054	135,450
Western Australia	{ All Cattle ..	943,847	880,644	849,803	893,108	939,596
	{ Dairy Cows ..	42,133	42,993	47,719	53,828	58,387
Tasmania	{ All Cattle ..	218,234	214,442	208,202	216,704	218,197
	{ Dairy Cows ..	64,511	64,073	63,681	68,595	69,991
Northern Territory	{ All Cattle ..	570,039	610,534	659,840	568,031	760,766
	{ Dairy Cows ..	70	70	70	70	(a)
Federal Capital Territory	{ All Cattle ..	8,894	8,378	7,387	8,200	6,275
	{ Dairy Cows ..	598	480	459	414	443
Australia ..	{ All Cattle ..	12,738,852	12,711,067	13,499,737	14,441,309	14,336,673
	{ Dairy Cows ..	1,902,036	1,908,536	2,055,038	2,343,221	2,419,809

(a) Not available.

2. **Milk.**—The annual quantity of milk produced per dairy cow varies greatly with breed, locality and season, reaching as high as 1,000 gallons, but averaging for the whole of Australia, for all dairy cows and for all seasons, prior to 1916, considerably under 300 gallons per annum. During recent years there has been an improvement in the grade of dairy cattle, and the 300 gallon mark has been exceeded on four occasions since 1916, the yield of 343 gallons in 1921 constituting a record. The average in 1922 was adversely affected by unfavorable seasonal conditions in the main producing States. The best yields over a series of years appear to be in Victoria, South Australia and New South Wales, while Queensland and Tasmania in normal years are above Western Australia. In the following table the annual average yields per cow for the last five years are based on the number of dairy cows which were in milk during any part of the year. The average given is considerably below that for cows which were yielding during the greater part of the year. The highest averages were, of course, obtained in those States which have most extensively adopted scientific methods of dairying, such as systematic breeding, culling of herds, milk testing, etc.

## MILK PRODUCTION, 1918 TO 1922.

Heading.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia. (b)
1918—								
Dairy Cows (a) .. No.	747,286	563,234	390,507	99,945	40,056	61,710	663	1,903,401
Production 1,000 gals.	209,925	207,102	87,580	32,243	8,544	15,796	170	558,360
Aver. per cow ..gals.	277	368	224	323	213	256	256	293
1919—								
Dairy Cows (a) .. No.	707,525	607,866	377,325	105,106	42,563	64,292	539	1,905,216
Production 1,000 gals.	203,707	196,884	71,856	30,899	9,608	16,503	90	529,547
Aver. per cow ..gals.	293	324	190	294	226	257	167	278
1920—								
Dairy Cows (a) .. No.	727,337	621,829	410,390	112,259	45,356	63,877	469	1,982,017
Production 1,000 gals.	250,998	204,522	104,659	34,657	10,234	19,000	105	623,275
Aver. per cow ..gals.	344	329	255	309	226	297	223	314
1921—								
Dairy Cows (a) .. No.	786,557	669,739	501,421	124,295	50,773	66,138	437	2,199,360
Production 1,000 gals.	285,166	245,181	151,081	41,398	11,329	21,000	105	755,260
Aver. per cow ..gals.	363	366	301	333	223	318	240	343
1922—								
Dairy cows (a) .. No.	806,268	757,186	558,945	133,252	56,108	69,293	428	2,381,480
Production 1,000 gals.	226,864	249,322	134,032	42,054	11,932	21,000	106	685,310
Aver. per cow ..gals.	281	329	240	316	213	303	248	288

(a) Mean for the year.

(b) Exclusive of Northern Territory.

**3. Butter and Cheese.**—While the quantity of dairy production is largely affected by the nature of the seasons, the output of butter shows a steady increase in the past decade. During that period the average annual production increased from 179,000,000 lb. for the quinquennium 1908–1912 to 212,000,000 lb. for the latest five years under review. The marked development of dairying in Queensland, where the butter production has doubled since 1912, was largely responsible for the increased butter output in Australia, although all the States contributed to the general progress. The production of 267,071,340 lb. in 1921 was the maximum output of butter in Australia.

The manufacture of cheese has been steadily increasing throughout Australia during recent years, the 1921 production of 32,653,003 lb. being the highest yet recorded. The output of cheese has grown from 16 to 26 million lb. during the past ten years, or more than 60 per cent, mainly as the result of substantial progress in Queensland, the production of which State now amounts to one-half of the Australian total.

The development in dairy production since 1896, and in the exports of butter from 1901 onwards are shown in the graphs on page 662. Particulars for the past five years are as follows:—

## BUTTER AND CHEESE PRODUCTION, 1918 TO 1922.

State.	1918.	1919	1920.	1921.	1922.
<b>BUTTER.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. ..	a65,991,738	a63,127,160	a84,259,641	a100,652,620	a73,705,349
Victoria .. ..	a66,240,403	a60,218,945	a64,938,468	a82,981,570	a84,355,940
Queensland .. ..	32,371,575	26,213,514	40,751,373	60,923,194	53,785,599
South Australia .. ..	a10,444,789	a9,810,335	a11,897,279	a14,565,599	a14,646,632
Western Australia .. ..	1,789,390	1,980,273	2,212,311	2,658,153	2,766,533
Tasmania .. ..	4,947,560	4,290,724	4,014,402	5,270,243	5,716,708
Federal Capital Territory ..	a17,220	a7,840	a8,400	a19,961	18,248
Australia .. ..	181,802,675	165,648,791	208,081,864	267,071,340	234,995,009
<b>CHEESE.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. ..	a5,982,120	a6,762,467	a6,407,209	a7,367,057	a5,198,905
Victoria .. ..	a6,055,964	a7,735,023	a3,636,571	a5,675,909	a4,754,960
Queensland .. ..	8,636,700	8,296,318	11,512,262	15,200,527	10,560,316
South Australia .. ..	a2,412,338	a2,540,133	a1,804,696	a3,392,400	a3,261,565
Western Australia .. ..	200	821	354	1,073	212
Tasmania .. ..	702,868	861,460	799,432	1,016,037	934,601
Australia .. ..	23,790,240	26,196,272	24,160,524	32,653,003	23,710,559

(a) For year ended 30th June of year following.

4. **Concentrated Milk.**—"Condensed" or "concentrated" milk represents milk the bulk of which is reduced by evaporation. The industry is of comparatively recent growth, the quantity of milk treated in 1901 being negligible, but production increased annually until in 1911 the output nearly doubled that of the previous year. Thenceforward rapid progress was made, the greatest development taking place in Victoria, where the industry is most largely established. There is still an import of milk, but the exports in each year far outweigh the quantity imported. No condensed or concentrated milk is made in South Australia, Western Australia, or Tasmania. In New South Wales, Victoria, and Queensland the returns for the last five years were as follows:—

**CONDENSED, CONCENTRATED, OR POWDERED MILK MADE, 1918 TO 1922.**

Year.	N.S.W.(a)	Victoria.(a)	Queensland.	Australia.
	lb.	lb.	lb.	lb.
1918 .. .. .	10,680,409	45,251,710	6,845,610	62,777,729
1919 .. .. .	12,969,679	44,219,389	9,170,034	66,359,102
1920 .. .. .	14,938,147	42,643,871	13,362,464	70,944,482
1921 .. .. .	6,860,466	48,354,210	15,168,652	70,383,328
1922 .. .. .	3,544,565	38,314,260	9,601,914	51,460,739

(a) For year ended 30th June of year following.

5. **Oversea Trade in Butter, Cheese, and Milk.**—The following tables give the imports, exports, and net exports of butter, cheese, and milk. In each of the five years the exports of butter, cheese, and condensed milk exceeded the imports.

**BUTTER, CHEESE AND MILK, IMPORTS AND EXPORTS.—AUSTRALIA, 1918-19 TO 1922-23.**

Products.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.
<b>IMPORTS.</b>					
Butter .. .. . lb.	16,439	36,774	33,762	732,336	2,955,934
" .. .. . £	1,087	2,282	2,097	58,982	237,149
Cheese .. .. . lb.	13,903	28,625	72,110	85,601	499,125
" .. .. . £	1,098	2,988	8,371	7,518	27,345
Milk—concentrated and preserved(a) lb.	575,934	1,075,887	603,565	130,592	417,054
" .. .. . £	30,802	49,029	30,883	14,658	28,371
<b>EXPORTS.</b>					
Butter .. .. . lb.	41,114,764	39,006,304	92,420,995	127,579,797	79,571,151
" .. .. . £	3,193,086	3,301,695	11,067,104	7,987,558	6,133,864
Cheese .. .. . lb.	2,303,308	7,524,910	9,531,310	12,671,029	5,454,466
" .. .. . £	118,855	377,905	514,252	438,372	231,907
Milk—concentrated and preserved(a) lb.	27,962,938	35,568,218	37,381,955	36,705,320	21,234,027
" .. .. . £	1,092,911	1,606,310	2,180,167	2,132,580	1,328,762
<b>NET EXPORTS.(b)</b>					
Butter .. .. . lb.	41,098,325	38,969,530	92,387,233	126,847,461	76,615,217
" .. .. . £	3,191,999	3,299,413	11,064,107	7,928,576	5,896,715
Cheese .. .. . lb.	2,289,405	7,496,285	9,459,200	12,585,428	4,955,341
" .. .. . £	117,757	374,917	505,881	430,854	204,562
Milk—concentrated and preserved(a) lb.	27,387,004	34,492,331	36,778,300	36,574,728	20,816,973
" .. .. . £	1,062,109	1,557,281	2,158,284	2,117,922	1,300,391

(a) See definition above. (b) Excess of exports over imports.

6. Local Consumption of Butter and Cheese.—The total production of butter and cheese, with the subtraction or addition of the net export or import for the corresponding period gives approximately the quantity available for consumption in Australia. In the period considered hereunder the local supply of cheese was adequate :—

**BUTTER AND CHEESE.—LOCAL CONSUMPTION, 1918 TO 1922.**

Products.	1918.	1919.	1920.	1921.	1922.
	lbs.	lbs.	lbs.	lbs.	lbs.
Butter .. Total ..	140,704,350	120,679,261	115,694,631	139,491,543	158,379,792
„ .. Per head of population ..	27.69	23.88	21.38	25.32	28.12
Cheese .. Total ..	21,500,835	18,699,987	14,701,324	19,981,974	18,755,218
„ .. Per head of population ..	4.23	3.53	2.72	3.43	3.33

The quantity available for consumption in 1922 averaged more than 28 lbs. of butter and about 3½ lbs. of cheese per head of population, an amount probably unsurpassed anywhere. The consumption of butter and cheese in the United Kingdom in normal times is given as about 22½ lbs. per head per annum.

**§ 3. Pigs and Pig Products.**

1. Pigs.—The number of pigs in Australia from 1918 to 1922 is shown below :—

**PIGS.—NUMBER, 1918 TO 1922.**

State.	1918.	1919.	1920.	1921.	1922.
New South Wales (b) ..	294,338	253,338	305,967	383,326	340,579
Victoria (a) ..	267,819	186,810	175,275	230,770	294,962
Queensland ..	140,966	99,593	104,370	145,083	160,617
South Australia (b) ..	79,078	60,295	78,395	87,667	75,520
Western Australia ..	85,863	58,155	60,581	63,001	67,561
Tasmania (a) ..	44,328	35,530	38,116	49,743	46,056
Northern Territory ..	1,200	1,675	1,416	452	361
Federal Cap. Territory (b) ..	310	572	286	343	274
Australia ..	913,902	695,968	764,406	960,385	985,930

(a) As on 1st March of year following.

(b) As on 30th June of year following.

For many years the number of pigs in Australia has fluctuated considerably. There was a heavy falling off in 1915, followed by substantial increases during 1916 and 1917, the number of pigs in 1917 being the highest recorded in Australia. The total of 1,169,365 pigs in 1917 declined to 695,968 in the next two years, but the numbers were supplemented by increases during each of three following years, and the total now amounts to nearly 1,000,000. The number of pigs per head of population, and the number per square mile, will be found in the tables of live stock, page 649.

2. Bacon and Ham.—(i) *Production.* During the past five years the production of bacon and ham has fluctuated between the record quantity of 66,181,218 lbs. manufactured in 1918, and 50,250,487 lbs. in 1920, the average for the period amounting to 59,056,145 lbs., which is far in excess of any previous five-yearly average.

BACON AND HAM.—PRODUCTION, 1918 TO 1922.

State.	1918.	1919.	1920.	1921.	1922.
	lbs.	lbs.	lbs.	lbs.	lbs.
New South Wales(a) ..	16,801,370	16,657,362	16,249,762	20,413,330	19,234,681
Victoria(a) ..	22,212,395	19,385,509	15,139,100	17,396,798	19,269,125
Queensland ..	16,476,480	12,155,489	11,337,050	12,386,417	15,130,545
South Australia(a) ..	6,567,394	5,810,616	4,172,372	5,089,424	5,002,199
Western Australia(b)	2,813,650	2,609,234	2,077,662	1,962,621	2,050,220
Tasmania ..	1,309,633	1,128,096	1,267,061	1,356,329	1,778,015
Federal Cap. Territory(a)	296	12,236	7,480	9,540	11,185
Total ..	66,181,218	57,758,592	50,250,487	58,614,459	62,475,970

(a) For year ended 30th June of year following. (b) A portion only from pigs slaughtered in the State, balance imported and subsequently cured.

(ii) *Local Consumption.* From 1904 onwards the production of bacon and ham has been sufficient to meet the local demand, and provide a small surplus for export.

BACON AND HAM.—LOCAL CONSUMPTION, 1918 TO 1922.

Particulars.	1918.	1919.	1920.	1921.	1922.
	lbs.	lbs.	lbs.	lbs.	lbs.
Total ..	60,586,277	54,732,706	47,151,519	55,926,806	60,753,826
Per head of population ..	11.92	10.32	8.71	10.15	10.78

3. *Oversea Trade in Pig Products.*—The oversea trade in pigs and pig products is shown in the following table :—

PIG PRODUCTS.—AUSTRALIAN TRADE, 1918-19 TO 1922-23.

Particulars.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.
Pigs.					
Imports ..	No. 4	16	11	31	31
" ..	£ 102	94	65	194	596
Exports ..	No. 60	164	166	119	67
" ..	£ 479	1,044	1,199	990	510
Net Exports ..	No. 56	148	155	88	36
" ..	£ 377	950	1,134	796	- 86

BACON AND HAM.

Imports ..	lbs. 42,624	15,047	14,610	25,292	149,270
" ..	£ 2,169	1,067	1,479	1,610	8,414
Exports ..	lbs. 5,637,565	3,040,933	3,113,578	2,712,945	1,871,414
" ..	£ 378,723	258,890	323,280	223,067	158,414
Net Exports ..	lbs. 5,594,941	3,025,886	3,098,968	2,687,653	1,722,144
" ..	£ 376,554	257,823	321,801	221,457	150,000

NOTE.—The minus sign — signifies net imports.

## PIG PRODUCTS.—AUSTRALIAN TRADE, 1918-19 TO 1922-23—continued.

Particulars.		1918-19.	1919-20.	1920-21.	1921-22.	1922-23.
LARD.						
Imports	.. .. lbs.	29,575	22,001	42,795	115,659	505,827
"	.. .. £	1,475	1,092	1,825	3,625	12,905
Exports	.. .. lbs.	6,016,825	7,969,444	3,118,105	2,909,658	1,358,291
"	.. .. £	205,694	375,910	153,084	88,753	38,491
Net Exports	.. .. lbs.	5,987,250	7,947,443	3,075,310	2,793,999	852,464
"	.. .. £	204,219	374,818	151,259	85,128	25,586
FROZEN PORK.						
Imports	.. .. lbs.	..	..	..	..	370,094
"	.. .. £	..	..	..	..	14,486
Exports	.. .. lbs.	839,557	371,397	163,303	152,584	144,796
"	.. .. £	40,325	19,149	9,370	7,414	6,282
Net Exports	.. .. lbs.	839,557	371,397	163,303	152,584	- 225,298
"	.. .. £	40,325	19,149	9,370	7,414	- 8,204

NOTE.—The minus sign - signifies net imports.

The output of pig products in Australia is more than sufficient to meet local requirements, and a profitable export trade is being built up.

During the last five years the average annual net export amounted to nearly half a million pounds sterling, the bulk of the shipments consisting of bacon, ham and lard.

## § 4. Total Dairy Production.

The total dairy production of Australia in 1922 is shown below :—

## TOTAL DAIRY PRODUCTION.—AUSTRALIA, 1922.

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust. (a)	W. Aust.	Tasmania.	Fed. Cap. Ter. (a)	Total.
MILK.								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
Butter ..	168,578,724	193,821,490	110,626,662	31,559,842	6,411,394	13,710,300	50,710	524,759,122
Cheese ..	5,411,023	3,769,275	9,774,783	3,191,111	214	941,245	..	23,087,651
Condensing and con- centrat- ing ..	1,906,916	9,693,395	2,700,788	..	..	..	..	14,301,099
Other pur- poses ..	50,967,262	42,037,362	10,929,597	7,303,260	5,520,409	6,348,455	55,365	123,161,710
Total ..	226,863,925	249,321,522	134,031,830	42,054,213	11,932,017	21,000,000	106,075	685,309,582
BUTTER.								
In Factories On Dairy and other Farms ..	lbs. 69,255,086	lbs. 78,773,470	lbs. 51,412,258	lbs. 10,927,220	lbs. 1,518,092	lbs. 3,822,840	lbs. ..	lbs. 215,708,966
Total ..	4,450,263	5,582,470	2,373,341	3,719,412	1,248,441	1,893,868	18,248	19,286,043
Total ..	73,705,349	84,355,940	53,785,599	14,646,632	2,766,533	5,716,708	18,248	234,995,009

(a) For year ended 30th June, 1923.

TOTAL DAIRY PRODUCTION.—AUSTRALIA, 1922—*continued.*

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust. (a)	W. Aust.	Tasmania.	Fed. Cap. Ter. (a)	Total.
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## CHEESE.

	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
In Factories On Dairy & other Farms ..	4,978,037	3,336,085	10,552,406	3,261,165	..	741,064	..	22,868,757
	220,868	418,875	7,910	400	212	193,537	..	841,802
Total ..	5,198,905	3,754,960	10,560,316	3,261,565	212	934,601	..	23,710,559

## CONDENSED, CONCENTRATED, OR POWDERED MILK.

In Factories	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
	3,544,565	38,314,260	9,601,914	..	..	..	..	51,460,739

## BACON AND HAM.

	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
In Factories On Dairy & other Farms ..	17,506,343	17,293,395	14,593,042	4,140,650	1,794,760b	1,070,067	..	56,398,257
	1,728,338	1,975,730	537,503	861,549	255,460	707,948	11,185	6,077,713
Total ..	19,234,681	19,269,125	15,130,545	5,002,199	2,050,220	1,778,015	11,185	62,475,970

(a) For year ended 30th June, 1923. (b) A portion only from pigs slaughtered in the State, the balance being imported and subsequently cured.

## § 5. Poultry Farming.

1. **General.**—Poultry stocks are largely maintained by farmers, and production therefrom furnishes a considerable addition to the annual agricultural or dairying returns. During recent years, however, poultry-keeping has assumed an independent position among rural industries, while it is also carried on in conjunction with pig farming. Special poultry farms have been instituted for scientific breeding, and poultry experts give lectures and instruction. Poultry for consumption is extensively reared, and the egg-producing qualities of the birds have been greatly improved by careful breeding. Co-operative egg-collecting circles have been formed in some districts; eggs are also delivered with the milk and cream to the local butter factories, and thence forwarded to market.

2. **Poultry Products.**—There is some difficulty in obtaining complete figures for the yield of poultry products. The following values relate to poultry and eggs:—

## POULTRY AND EGGS.—VALUE OF PRODUCTION, 1918-19 TO 1922-23.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Australia.
	£	£	£	£	£	£	£
1918-19 ..	2,501,000	2,738,620	319,602	690,539	189,471	300,000	6,739,232
1919-20 ..	2,814,000	3,579,230	356,590	924,986	191,288	300,000	8,166,094
1920-21 ..	3,196,000	4,545,620	449,827	1,164,999	189,658	300,000	9,846,104
1921-22 ..	2,650,000	4,406,750	429,983	1,027,634	208,429	300,000	9,022,796
1922-23 ..	2,894,000	4,315,810	417,052	1,066,137	240,423	300,000	9,233,422

(a) Estimated.

3. **Oversea Trade in Poultry Products.**—The Australian oversea trade in live or frozen poultry is insignificant, although the export of frozen poultry is increasing. During the past three years fairly large consignments were forwarded from New South Wales mainly to the United States of America. The imports and exports of eggs and egg-contents show a balance on the side of exports. The export trade in eggs has expanded considerably during the last four years, and in 1922-23 the number exported amounted to 1,209,283 dozen, the bulk of which were shipped from New South Wales to the United Kingdom. The number of eggs imported into Australia during the last five years amounted to 94,408 dozen, of which number China supplied 84,943 dozen, or nearly 90 per cent.

**POULTRY PRODUCTS, TRADE.—AUSTRALIA, 1918-19 TO 1922-23.**

Particulars.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.
<b>LIVE POULTRY.</b>					
Imports .. .. No.	693	721	484	663	791
" .. .. £	878	1,564	850	1,170	1,534
Exports .. .. No.	1,699	2,477	2,886	2,626	2,872
" .. .. £	1,231	2,448	2,741	3,272	2,682
Net Exports .. No.	1,006	1,756	2,402	1,963	2,081
" .. .. £	353	884	1,891	2,102	1,148
<b>FROZEN POULTRY.</b>					
Imports .. .. lbs.	3,752	10,273	4,087	2,712	4,784
" .. .. £	208	602	328	178	228
Exports .. .. pair	8,298	13,346	22,376	50,367	34,399
" .. .. £	5,141	10,760	29,963	50,205	42,951
Net Exports ..	(a)	(a)	(a)	(a)	(a)
" .. .. £	4,933	10,158	29,635	50,027	42,723
<b>Eggs.</b>					
Imports .. .. doz.	2,633	4,015	27,452	33,558	26,750
" .. .. £	169	230	1,802	1,994	1,591
Exports .. .. doz.	8,409	211,034	413,602	808,849	1,236,033
" .. .. £	746	17,461	53,932	75,857	102,946
Net Exports .. doz.	5,776	207,019	386,150	775,291	1,209,283
" .. .. £	577	17,231	52,130	73,863	101,355
<b>EGG-CONTENTS.</b>					
Imports .. .. lbs.	344	4,992	23,898	26,590	33,672
" .. .. £	94	1,523	4,446	4,091	5,250
Exports .. .. lbs.	(a)	(a)	(a)	(a)	(a)
" .. .. £	1,823	48,675	27,298	12,116	38
Net Exports .. lbs.	(a)	(a)	(a)	(a)	(a)
" .. .. £	1,729	47,152	22,852	8,025	- 5,212

NOTE.—The minus sign — signifies net imports. (a) Quantity not available.

**§ 6. Bee Farming.**

1. **General.**—As is the case with poultry-farming, bee-farming is frequently carried on in connexion with agriculture or dairying. The returns of honey from productive hives during 1922-23 gave an average of 58½ lbs. per hive, while the average quantity of wax was ½ lb. per hive

2. Production of Honey and Beeswax.—The number of hives and the production of honey and beeswax during the year 1922-23 are given in the following table :—

## BEE-HIVES, HONEY, AND BEESWAX, 1922-23.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lbs.	£	lbs.	£
New South Wales . . .	26,784	11,530	38,314	1,235,905	22,140	28,244	2,385
Victoria . . .	36,994	15,066	52,060	2,285,000	42,844	27,182	2,378
Queensland . . .	12,936	4,100	17,036	580,057	12,858	8,895	713
South Australia . . .	20,615	2,242	22,857	1,863,026	23,935	19,111	1,453
Western Australia . . .	7,902	1,323	9,225	330,869	5,358	5,391	399
Tasmania . . .	3,642	2,033	5,675	71,030	1,775	1,473	110
Fed. Cap. Territory . . .	71	19	90	3,175	60	198	15
Australia . . .	108,944	36,313	145,257	6,369,062	108,970	90,494	7,453

The table hereunder gives the production of honey and beeswax for the latest available five years :—

## HONEY AND BEESWAX PRODUCTION, 1918-19 TO 1922-23.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
<b>HONEY.</b>								
1918-19	879,356	1,644,447	410,182	1,683,725	415,616	151,605	420	5,185,351
1919-20	472,020	1,396,704	305,586	552,976	336,206	80,468	320	3,144,280
1920-21	1,441,617	1,724,942	426,662	1,821,811	149,226	85,125	1,760	5,651,143
1921-22	2,986,574	2,712,675	598,357	791,324	196,440	82,920	2,500	7,370,790
1922-23	1,235,905	2,285,000	580,057	1,863,026	330,869	71,030	3,175	6,369,062
<b>BEESWAX.</b>								
1918-19	19,231	25,286	9,099	14,653	6,621	3,087	..	77,977
1919-20	12,195	24,735	7,215	7,350	6,611	2,329	..	60,435
1920-21	23,234	24,222	7,501	17,501	3,849	1,788	86	78,181
1921-22	28,255	32,737	8,231	9,108	3,980	1,976	130	84,417
1922-23	28,244	27,182	8,895	19,111	5,391	1,473	198	90,494

The quantity of honey and beeswax produced naturally varies from year to year according to the conditions of the seasons. During the last five years New South Wales has produced 7,015,472 lbs. of honey and 111,159 lbs. of beeswax, while the Victorian figures amounted to 9,763,768 lbs. and 134,162 lbs. respectively for honey and beeswax. These two States together accounted for 60½ per cent. of the total production of honey, and 62½ per cent. of the beeswax. Next in order of importance were South Australia, Queensland, and Western Australia.

3. **Oversea Trade in Bee Products.**—In normal years the local production of honey exceeds Australian requirements, and a considerable quantity is exported. During the past five years the value of the exports amounted to £273,694, or an annual average of £54,739, and it is believed that the export could be considerably increased. Australian honey exhibited at the Franco-British Exhibition in London in 1908 obtained the highest award. The more general use of frame hives in recent years has affected the production of wax, and as a result the quantity imported has exceeded that exported during each of the past five years.

**BEE PRODUCTS.—IMPORTS, EXPORTS, ETC., AUSTRALIA, 1918-19 TO 1922-23.**

Particulars.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.
<b>HONEY.</b>					
Imports .. lbs.	150	1,093	201,548	13,572	811
" .. £	4	35	5,838	399	24
Exports .. lbs.	8,747,760	588,384	97,541	94,471	57,638
" .. £	248,685	18,815	5,328	4,448	2,718
Net Exports .. lbs.	8,747,610	587,291	- 104,007	80,899	56,827
" .. £	248,681	18,780	- 510	4,049	2,694

**BEESWAX.**

Imports .. lbs.	36,136	26,149	28,235	223,441	238,368
" .. £	3,493	1,969	2,452	12,786	13,817
Exports .. lbs.	7,269	15,853	7,535	2,259	671
" .. £	598	1,467	810	154	61
Net Exports .. lbs.	- 28,867	- 10,296	- 20,700	- 221,182	- 237,697
" .. £	- 2,895	- 502	- 1,642	- 12,632	- 13,756

NOTE.—The minus sign — signifies net imports.

**§ 7. Value of Farmyard, Dairy, and Bee Products.**

The value of the farmyard, dairy and bee products raised in Australia in 1922 was as follows:—

**FARMYARD, DAIRY, AND BEE PRODUCTS.—VALUE, 1922.**

Products.	N.S.W.(a)	Victoria. (a)	Q'land.	S. Aust. (a)	W. Aust.	Tas.	N.T.	Fed. Cap. Ter. (a)	Australia.
	£	£	£	£	£	£	£	£	£
Milk, consumed as such ..	3,185,454	2,627,335	683,100	456,454	345,026	396,778	..	3,460	7,697,607
Butter ..	6,524,711	6,660,834	4,185,368	1,076,840	216,019	372,686	..	1,615	19,038,073
Cheese ..	249,351	163,200	415,619	120,960	8	32,596	..	..	981,734
Condensed and concentrated milk	c 242,586	d1,434,719	e 379,696	..	..	..	..	..	2,057,001
Bacon and ham ..	979,845	981,600	717,089	274,764	121,638	87,956	..	570	3,163,462
Pork ..	292,093	248,137	144,226	137,128	69,315	80,104	364	..	971,367
Lard ..	26,302	30,457	27,935	6,412	4,023	3,911	..	15	99,055
Livestock ..	..	160,480	11,650	..	11,400	..	..	..	183,530
Poultry and eggs	2,894,000	4,315,810	417,052	1,066,137	240,423	300,000	..	(b)	9,233,422
Honey and wax	24,525	45,222	13,571	25,388	5,757	1,885	..	75	116,423
<b>Total ..</b>	<b>14,418,867</b>	<b>16,667,794</b>	<b>6,995,306</b>	<b>3,164,083</b>	<b>1,013,609</b>	<b>1,275,916</b>	<b>364</b>	<b>5,735</b>	<b>43,541,674</b>

(a) Year ended 30th June year following. (b) Included with New South Wales. (c) Includes table and sterilized cream, £14,689. (d) Includes casein, £74,130, and milk sugar, £25,546. (e) Includes coffee and milk, and cocoa and milk, £109.

### § 8. Exports of Australian Farmyard, Dairy and Bee Products.

The quantities and values of Australian farmyard, dairy, and bee products exported during each of the last five years are shown below :—

#### AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS.—EXPORTS, 1918-19 TO 1922-23.

Products.	1918-19.	1919-20.	1920-21.	1921-22.	1922-23.
QUANTITY.					
Beeswax .. .. . lbs.	7,252	14,438	5,838	830	581
Butter .. .. . "	41,114,764	39,006,304	92,420,995	127,347,428	78,975,387
Cheese .. .. . "	2,303,276	7,516,412	9,530,221	12,670,782	5,454,415
Egg albumen and yolk .. .. . (a)					
Eggs .. .. . doz.	8,359	210,784	413,477	807,359	1,236,033
Feathers, undressed .. .. . (a)					
Honey .. .. . lbs.	8,747,760	588,384	97,541	94,471	57,638
Lard .. .. . "	6,016,383	7,931,014	3,118,105	2,908,595	1,357,372
Meats—					
Bacon and ham .. .. . "	5,636,891	3,040,933	3,113,488	2,712,911	1,871,414
Frozen poultry .. .. . pair	8,298	13,346	22,376	50,367	34,399
Frozen pork .. .. . lbs.	839,557	371,397	163,303	152,584	137,946
Milk, concentrated and preserved .. .. . "	27,934,998	35,548,082	37,281,554	36,678,109	21,135,137
Pigs, living .. .. . No.	60	164	166	119	67
Poultry, living .. .. . "	1,699	2,477	2,880	2,624	2,858
VALUE.					
	£	£	£	£	£
Beeswax .. .. . "	596	1,325	623	77	51
Butter .. .. . "	3,193,086	3,301,695	11,067,104	7,968,078	6,082,414
Cheese .. .. . "	118,850	377,398	514,129	438,350	231,898
Egg albumen and yolk .. .. . "	1,823	48,675	27,055	12,061	32
Eggs .. .. . "	743	17,434	53,920	75,764	102,946
Feathers, undressed .. .. . "	61	793	1,133	956	1,247
Honey .. .. . "	248,685	18,815	5,328	4,448	2,718
Lard .. .. . "	205,675	374,641	153,084	88,694	38,447
Meats—					
Bacon and ham .. .. . "	378,685	258,890	323,253	223,065	158,414
Frozen poultry .. .. . "	5,141	10,760	20,963	50,205	42,951
Frozen pork .. .. . "	40,325	19,149	9,370	7,414	6,063
Milk, concentrated and preserved .. .. . "	1,091,889	1,605,161	2,184,761	2,131,279	1,325,883
Pigs, living .. .. . "	479	1,044	1,199	990	510
Poultry, living .. .. . "	1,231	2,448	2,731	3,268	2,640
Total .. .. . "	5,287,269	6,038,228	14,373,657	11,004,640	7,996,214

(a) Quantity not available.

### § 9. British Imports of Dairy Products.

1. Quantities and Values.—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1918 to 1922 :—

#### DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM, 1918 TO 1922.

Products.	1918.	1919.	1920.	1921.	1922.
Butter .. .. . cwts.	1,578,658	1,560,204	1,702,203	3,523,976	4,268,561
" .. .. . £	19,769,738	19,854,427	24,518,748	42,339,947	37,315,536
Cheese .. .. . cwts.	2,357,103	2,118,250	2,750,260	2,517,465	2,659,345
" .. .. . £	15,905,858	15,170,620	20,635,946	17,448,521	12,437,818
Milk—Concentrated and preserved .. .. . cwts.	2,707,761	3,347,645	2,127,199	2,350,610	2,059,050
" .. .. . £	13,472,544	17,088,310	13,083,897	11,303,566	6,588,155
Bacon and ham .. .. . cwts.	12,028,505	10,094,352	5,935,981	6,804,875	7,368,394
Pork (a) .. .. . cwts.	103,410,221	89,681,616	53,339,250	51,745,149	44,115,900
" .. .. . £	111,345	160,263	485,181	372,055	292,358
" .. .. . £	763,484	1,075,563	3,443,332	1,863,027	1,102,304

(a) Frozen, chilled, and salted.

2. **Butter.**—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity forwarded in 1922 amounted to 931,137 cwt., or nearly 22 per cent. of the total importation into the United Kingdom, and was exceeded only by that shipped from Denmark and New Zealand. The value of the Australian shipments was £6,996,678.

**BUTTER IMPORTS.—UNITED KINGDOM, 1922.**

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	Cwt.	£		Cwt.	£
Denmark ..	1,423,796	13,969,683	Sweden .. ..	16,554	174,809
New Zealand ..	1,103,444	9,340,703	France .. ..	21,157	173,815
Australia ..	931,179	6,996,678	Foreign Countries, n.e.i. .. ..	18,343	170,683
Argentine Republic	356,158	2,731,441	British Possessions, n.e.i. .. ..	13,155	72,663
Canada .. ..	154,532	1,530,768			
Finland .. ..	117,274	1,097,270	Total .. ..	4,268,561	37,315,536
Netherlands ..	78,615	710,399			
United States of America .. ..	34,354	346,624			

(ii) *London Prices.* The average price of the best quality Australian butter in London during the past ten years is shown in the following table :—

**AUSTRALIAN BUTTER.—LONDON PRICES, 1913 TO 1923.**

Year.	Average Top Price per Cwt.	Year.	Average Top Price per Cwt.
	s. d.		s. d.
1913	114 6	1919	(b) 252 0
1914	119 0	1920	(b) 299 9
1915	144 6	1921	234 0
1916	169 6	1922	183 0
1917	(a) 206 0	1923	184 6
1918	(b) 252 0		

(a) Proclaimed price.

(b) Flat rate for all imported butter.

Under contract the British Government purchased the surplus output of Australian butter during the period from 1st July 1918, to 31st July, 1920. The price paid was 175s. per cwt. for butter scoring 90 points, a shilling per cwt. being added or deducted as the grading score exceeded or fell below that standard. On the 1st August, 1920, the contract was extended for a further period, the price of butter having been increased to 240s. per cwt., subsequently raised to 272s., and the grading price being likewise increased to 1s. 6d. per cwt. This contract terminated on the 31st March, 1921, butter thenceforward being sold in open market.

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1922 was £12,437,818, of which nearly six million pounds' worth was received from New Zealand, and four and a half million pounds' worth from Canada. Small experimental shipments from Australia were made in 1908 and following years, fair prices being realized. The value of the imports from Australia has increased from £24,568 in 1913 to £434,118 in 1922.

4. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1922 at £44,115,900, the United Kingdom received imports to the value of £20,090,125 from the United States, £16,663,898 from Denmark, and £4,914,002 from Canada. The import from Australia was small, experimental shipments only having been made during recent years.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and salted only) was £1,102,304 in 1922. There was no importation from Australia, the bulk of the supplies being forwarded from the United States, Argentine Republic and Denmark.

6. **Other Products.**—There was practically no shipment to the United Kingdom from Australia of beeswax, poultry, game, lard, or honey, but frozen rabbits to the value of £411,888, and eggs to the value of £87,874 were received from Australia in 1922.